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| APPLICATION NO.   | FILING DATE   | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.             | CONFIRMATION NO. |
|---|---------------|----------------------|---------------------------------|------------------|
| 09/830,811  | 08/30/2001    | Colin D. MacCalman   | 27866/37317                     | 1999             |
| 75  | 90 07/30/2003 |                      |                                 |                  |
| Gerstein E Noland<br>Marshall O'Toole Gerstein Murray & Borun<br>6300 Sears Tower |               |                      | EXAMINER                        |                  |
|   |               |                      | HUFF, SHEELA JITENDRA           |                  |
| 233 South Wacker Drive<br>Chicago, IL 60606-6402                                  |               | ART UNIT             | PAPER NUMBER                    |                  |
|   |               |                      | 1642<br>DATE MAILED: 07/30/2003 | 9                |

Please find below and/or attached an Office communication concerning this application or proceeding.

| \$   | Application No.   | Applicant(s)  |  |
|--|---|---|--|
|  | 09/830,811  | MACCALMAN, COLIN D.   |  |
| Office Action Summary  | Examiner  | Art Unit  |  |
|  | Sheela J Huff   | 1642  |  |
| The MAILING DATE of this communication Period for Reply  | appears on the cover sheet  | with the correspondence address   |  |
| A SHORTENED STATUTORY PERIOD FOR RE THE MAILING DATE OF THIS COMMUNICATIO  - Extensions of time may be available under the provisions of 37 CFI after SIX (6) MONTHS from the mailing date of this communication  - If the period for reply specified above, is less than thirty (30) days, a  - If NO period for reply is specified above, the maximum statutory pe  - Failure to reply within the set or extended period for reply will, by st  - Any reply received by the Office later than three months after the m earned patent term adjustment. See 37 CFR 1.704(b). | N. R 1.136(a). In no event, however, may to reply within the statutory minimum of the viril apply and will expire SIX (6) Matute, cause the application to become | a reply be timely filed thirty (30) days will be considered timely. ONTHS from the mailing date of this communication. ABANDONED (35 U.S.C. § 133). |  |
| Status   |   |   |  |
| 1) Responsive to communication(s) filed on   |   |   |  |
| , <u> </u>   | This action is non-final.   |   |  |
| <ul> <li>Since this application is in condition for all closed in accordance with the practice und</li> <li>Disposition of Claims</li> </ul>   |   |   |  |
| 4) Claim(s) 1-21 is/are pending in the applica   | ition.  |   |  |
| 4a) Of the above claim(s) is/are with  | drawn from consideration.   |   |  |
| 5) Claim(s) is/are allowed.  |   |   |  |
| 6) Claim(s) is/are rejected.   |   |   |  |
| 7) Claim(s) is/are objected to.  |   |   |  |
| 8) Claim(s) 1-21 are subject to restriction and  | or election requirement.  |   |  |
| Application Papers   |   |   |  |
| 9)☐ The specification is objected to by the Exam   | niner.  |   |  |
| 10)☐ The drawing(s) filed on is/are: a)☐ a   | ccepted or b) objected to b   | y the Examiner.   |  |
| Applicant may not request that any objection to  | o the drawing(s) be held in ab  | eyance. See 37 CFR 1.85(a).   |  |
| 11)☐ The proposed drawing correction filed on  | is: a) approved b)  | disapproved by the Examiner.  |  |
| If approved, corrected drawings are required in  | n reply to this Office action.  |   |  |
| 12)☐ The oath or declaration is objected to by the   | Examiner.   |   |  |
| Priority under 35 U.S.C. §§ 119 and 120  |   |   |  |
| 13) Acknowledgment is made of a claim for for  | eign priority under 35 U.S.C  | C. § 119(a)-(d) or (f).   |  |
| a) All b) Some * c) None of:   |   |   |  |
| 1. Certified copies of the priority docum  | ents have been received.  |   |  |
| 2. Certified copies of the priority docum  | ents have been received in  | Application No  |  |
| <ul> <li>3. Copies of the certified copies of the paper application from the International</li> <li>* See the attached detailed Office action for a</li> </ul>   | Bureau (PCT Rule 17.2(a)  | ).  |  |
| 14) Acknowledgment is made of a claim for dom  | •   |   |  |
| a) ☐ The translation of the foreign language 15)☐ Acknowledgment is made of a claim for dom  | provisional application has   | been received.  |  |
| Attachment(s)  | · •   |   |  |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper Not  | 5) Notice   | ew Summary (PTO-413) Paper No(s) of Informal Patent Application (PTO-152)   |  |
| S. Patent and Trademark Office PTO-326 (Rev. 04-01) Office   | e Action Summary  | Part of Paper No. 9   |  |

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## **DETAILED ACTION**

## Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

To have a general inventive concept under PCT rule 13.1, the inventions need to be linked by a special technical feature. The special technical feature recited in claim 1 is the modulation of differentiation or neoplastic transformation of cells by increasing or decreasing cad-11 expression or function. In view of this US 5646250 reads on the claim. This reference discloses methods for modulating cadherin activity using antibodies, polypeptides or small molecules (col. 4, lines 47-52) and the remaining disclosure goes on to talk about the different cadherins including cad-11. Additionally, as noted by the patent cadherin is involved in cell-cell interation and this is important in tumor metastasis (col. 1, lines 25+) and that one of the objects of their invention to look at cadherin as a modulator of cell-cell interations. Therefore the technical feature recited in claim 1 is not special. Accordingly the groups are not so linked as to form a single general concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in response to this action, to elect a single invention to which the claims must be restricted.

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Group I, claim(s) 1-6, 13-14 drawn to modulating differentiation or neoplastic transformation using a hormone.

Group II, claim(s) 1-5, 7-8, 13, 15-16, drawn to modulating differentiation or neoplastic transformation using an antibody.

Group III, claim(s) 1-5, 9-13 and 17-19, drawn to modulating differentiation or neoplastic transformation using an antisense oligonucleotide.

Group IV, claim(s) 20-21, drawn to a method of assessing the metastatic potential of carcinoma cells.

The inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: As set forth above, in view of the teaching of US 5646250 the groups are not so linked as to form a single general concept under PCT Rule 13.1 because the technical feature of claim 1 is not special.

Inventions of Groups I and II and III represent the use of separate and distinct products which are made by materially different methods, and are used in materially different methods which have different modes of operation, different functions and different effects. The oligonucleotides of Group III and the antibody of Group II are all

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structurally and chemically different from each other. The polynucleotide is made by nucleic acid synthesis while the antibody is raised by immunization. The hormones of Group I differ from the other two groups in that hormones are proteins and as such they are chemically and structurally different from nucleic acids or antibodies. The examination of all groups would require different searches in the U.S. Patent shoes and the scientific literature and would require the consideration of different patentability issues. Thus the inventions I and II and III are patentably distinct.

The methods of Inventions [I-III] and IV differ in the method objectives, method steps and parameters and in the reagents used. Inventions I-III recites a method of modulating and Invention IV recites a method of assessing. The examination of all groups would require different searches in the U.S. PATENT shoes and the scientific literature and would require the consideration of different patentability issues. Thus Inventions III and IV are separate and distinct in having different method objectives, method steps and parameters and in the reagents used and are patentably distinct.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter and different searches in the patent literature, restriction for examination purposes as indicated is proper.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela J Huff whose telephone number is 703-305-7866. The examiner can normally be reached on Tuesday 5:30am-11:30am and Fridays 6:00am-4:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Caputa can be reached on 703-308-3995. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4242 for regular communications and 703-308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

Adulta J. Huff

Sheela J Huff Primary Examiner

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sjh

July 29, 2003